

summoned by telephone to a meeting with the committee on Wednesday, December 10, the secretary who issued the invitation refusing to give any indication of its purpose. It seems that at the meeting Professor E. F. Scowen, the chairman of the committee, was asked why he could not divulge the evidence on which the committee had acted. He is said to have replied that he regarded it as his duty to be prepared to give preliminary warnings when he considered them necessary, and that the committee could not wait until it had amassed full evidence because it would then be making a statement and not a preliminary warning.

Because of a leak that appeared in the press the following day, the committee decided to bring forward the date of its press conference, which was accordingly held on Thursday, December 11, before doctors had been warned.

Meanwhile the pharmaceutical companies had no time to lose in adjusting to the new situation. Organon, for example, was in particular straits because all three of its contraceptive pills were high oestrogen formulations. Fortunately, the company happened to have a low oestrogen formulation ready on its shelves, production of which was started on Friday, December 12. The trade name for the new brand, Minilyn, had already been registered, and the approval of both the Committee on Safety of Drugs and the Family Planning Association was obtained on the Friday. The packaging problem was met by an unusual improvisation; Organon located a firm in Hertfordshire that manufactures wage packets, a large quantity of which were bought up and dispatched to the company's production plant in Scotland. Labels were hastily printed and the first deliveries of Minilyn were made on Monday, December 15, a bare five days after the committee had uttered its fiat.

Similar feats of improvisation were accomplished by G. D. Searle and Co., whose Ovulen-50 was also launched on the Monday following the announcement. Searle also happened to have a low dose oestrogen formulation in stock which had been prepared in response to requests from doctors in the Far East. The product was launched in the packages used for another pill in the Searle range with overprinted labels. A spokesman at the company said they had amazed even themselves by the speed at which Ovulen-50 was seen onto the market.

## LABORATORIES

### Physics by the Thames

THE latest annual report of the National Physical Laboratory at Teddington (HMSO, £1 8s) makes solid reading. Clearly the laboratory has now adapted to its division into three groups devoted to measurement, materials and engineering sciences, with control firmly in the hands of the Ministry of Technology and the Royal Society playing an advisory part. The old NPL steering committee and the visiting board which used to oversee the activities of the laboratory have now disappeared. There is now a six-man advisory board which first met in June last year. The function of the advisory board is to inspect the laboratory at least three times a year and to report annually to the Ministry of Technology. With the ministry's unabashed devotion to the industrial application of science, it might now be the time to change the name to

the National Technical Laboratory, but that would be to ignore seventy years of history.

Part of the difficulty in bringing the achievements of the NPL into focus is that its objectives are so diffuse. The present annual report still quotes the 1900 definition—"to bring scientific knowledge to bear practically upon our everyday industrial and commercial life, to break down the barrier between theory and practice, to effect a union between science and commerce". What people should be asking is whether this is sufficient guidance for those spending the £5.1 million which was the direct expenditure of the NPL in 1968-69. On the admission of the director, Dr J. V. Dunworth, the NPL has never been concerned with large scale projects, and has not played a large part in the developing technologies of recent years, which is why its research programme has an old-fashioned look about it. Changes show up best in the engineering sciences group, which, as well as the traditional work on ships, is developing a healthy interest in computers. At present, the Division of Computer Science is concentrating on ways of making printed matter and speech accessible to computers and on the development of a data communication network.

What the NPL is hoping is that its putative communications network will be chosen by the Post Office as the design for a national data communications system. Whether this happens depends on technical and market surveys being carried out for the Post Office, but it seems probable that the NPL scheme is likely to be adopted only if the surveys reveal a booming market for data communications, chiefly because the NPL proposal is for a large capacity network with computers to control the switching of messages through the system. To test the principle, a small scale network is nearing completion to serve the needs of the laboratory and to represent a small branch of a national network. The laboratory's computers are to be connected to various input and output devices such as teleprinters, line printers, display units and data collection equipment through a small intermediate computer which will be the switching unit.

In the main, the Engineering Sciences Division seems concerned to do work which is not possible for industry because of the expense or the facilities required. Otherwise the NPL looks like a rather grandiose advisory centre for government and industry. The 269 pages of the annual report give the impression that the NPL is doing a lot of good physics which is just waiting to be pounced on by commercial interests, but it would be more convincing if the industrial connexions were clearer.

## ENVIRONMENT

### Spreading the Word

THE poet Ted Hughes, the Sovietologist Daniel Weissbort and the author David Ross are editing a magazine called *Your Environment* which was published for the first time last month. "Our overriding ambition," proclaims the introductory editorial, "is to be instrumental in the provision of practical solutions," and the magazine's intention is to offer informed articles on conservation, pollution and natural resources rather than to join the fashionable panic. *Your Environment* will appear quarterly (annual subscription 30s from 10 Roderick Road, London NW3).

The content of the first issue is rather uneven. John Whale writes sanely about river pollution, accepting the impracticality of complete cleanliness but warning that "once a level of cleanliness has been determined for a particular stretch of water, achieving and maintaining it becomes a proper subject for public spending". He makes the interesting point that local authorities are the worst river polluters in Britain—because of sewage—and also supply the majority of members for the river authorities that are responsible for removing the pollution. Vicious circles of inactivity can thus easily develop, and they are not likely to be alleviated by local government reforms which would in effect put fewer local councils in charge of the same number of river authorities.

There are also, however, seven pages of polemic against fluoridation—nearly a quarter of the magazine—which are admittedly well documented but rest mainly on repeating the obvious argument that because dental decay results from eating too much sugar it is important to encourage people to cut down on sweets. A second campaign, in spite of its title of "Who'll Kill King Car?", remains more level-headed and leads into a discussion of the advantages of banning motor traffic from city centres, measured by the fact that "40 per cent of the traffic displaced from London Street, Norwich [now a pedestrian precinct], simply and immediately disappeared".

The viability of the magazine depends on selling at least 2,000 subscriptions for the first year, but Mr Ross seems confident that the figure will be reached. To reach the bookstalls, *Your Environment* may need more substantial backing, and the editors are looking for industrialists to sponsor individual issues in return for the publicity they would gain.

## BIOLOGY

### European Research

BIOLOGICAL research in the European Economic Community has its strong points, particularly in some agricultural fields, but in biomedical fields such as virology and biochemistry it falls far behind that in other countries. This, at least, is one of the main conclusions of the European Commission on the basis of a recent survey (*Euro-Spectra*, December 1969). Not surprisingly, the commission's view is that the trouble is the lack of organization and cooperation at community level. The report also comes out for the planning and coordination of research programmes, joint key projects, community scale laboratories and the easier transfer of scientists between different countries.

Research institutes cooperating in the survey agreed on a number of focal points where increased research efforts would find rapid practical application. In radiobiology, for instance, the problems that should be studied include late developing radiation damage, the long term effects of radium-224, radiation damage from minor radiation doses and biochemical radiation protection.

Laboratories were also asked in which fields EEC countries are ahead of or behind non-member countries. Virology was considered to be virtually undeveloped in the community, but research in immunology is held to have progressed satisfactorily even if it still falls short of the standard achieved in the United States. In genetics, the significant fields are thought

to be molecular genetics, experimental evolution and extrachromosomal heredity. The feeling in cancer research seems to be that intensive collaboration between individual research groups is not good enough and that it would be more appropriate to set up a European form of the National Institutes of Health.

It seems also to have been agreed that the EEC leads in important fields of agricultural research such as genetics, zootechnics, plant improvement, parasite control and soil science. Particularly good work in the field of plant diseases has been done in the Netherlands.

## ORDNANCE SURVEY

### Brave Metric World

THE Ordnance Survey will at least be able to face the metric age with all its 4,600 people under one roof at the new headquarters at Southampton. This is one of the calmer undertones of the annual report for 1968-69, now published (HMSO, 13s). Although the first of the new large scale maps (1:1,250 and 1:2,500) have now been published in metric, the Ordnance Survey says that "it will be a long time" before the whole of Britain is covered by a uniform series of maps at these scales. It remains to be seen what will happen to the small scale maps, particularly the one-inch maps most widely used (and accounting for 7 million of the 40 million maps printed in the year).

The Ordnance Survey is already engaged on a scheme for the readjustment of European geodetic networks, eventually intended to be a good deal more accurate than would be necessary for map-making as such. Although the work so far has consisted simply of triangulation, the survey has been installing and measuring by optical methods a number of distance standards. It has also established a line from Hexham to Hawick as a supplement to the existing levelling framework. As another part of the process of constructing control surveys, the Ordnance Survey is also using satellite observations for triangulation, and has collected close on 500 usable photographs for this purpose.

Map-making continues. The mapping of built-up areas on the scale of 1:1,250 has now been completed, but work still remains on the rural survey at 1:2,500. Aerial photography remains an important source of information, even though the Ordnance Survey's use of it seems to have been reduced by bad weather in 1968. The use of automatic methods of map-making is also being pursued; the report says that one of the objectives of the work now under way is to test the feasibility of a "digital cartographic computer bank". One test of the feasibility of this system, already completed, has been to store in a computer the information corresponding to all point and line data on a single sheet of 1:2,500 map and then to redraw the map automatically. One part of this investigation is the devising of a method for digitizing contours by means of a device attached directly to stereo-plotters—this device may eventually serve as a means of drawing contours on the maps of smaller scale.

Successful though it may be, the Ordnance Survey is nowhere in sight of the Fultonian objective of being able to balance its books without help from the central government. Although it earned more than £1 million in 1968 from the provision of map-making services to